

CLAIMS

What is claimed is:

1 1. A system for delivering content items over a network to recipient
2 processors within a service region, the system comprising:
3 a plurality of edge servers connected for communication on the network and
4 distributed within the service region, each edge server having a storage facility for
5 storing content items for delivery to recipient processors;
6 at least one parent server connected for communication on the network, for
7 storing content items and providing content items to edge servers; and
8 at least one main server connected for communication on the network for
9 providing an interface for receiving and processing requests for content items from
10 recipient processors, wherein each main server is programmed or configured for
11 directing recipient processors to edge servers to obtain requested content items.

1 2. A system as recited in claim 1, wherein the network comprises the
2 Internet and the interface comprises a website supported by the at least one main
3 server.

1 3. A system as recited in claim 1, wherein each parent server stores all
2 available content items and wherein each edge server stores less than all available
3 content items.

1 4. A system as recited in claim 1, wherein each edge server is
2 programmed or configured to receive requests for content items from a recipient
3 processor that is directed to the edge server by the main server and, in response to a
4 request, determine whether the requested content item is stored with the edge server
5 and, if the requested content item is not stored with the edge server, requesting the
6 content item from a parent server.

1 5. A system as recited in claim 1, wherein the content items comprise
2 digitally encoded files, each file having at least 500 Mega Bytes of data.

1 6. A system as recited in claim 1, wherein the content items comprise
2 digitally encoded movie files.

1 7. A process as recited in claim 1, wherein directing recipient processors
2 comprises providing recipient processors with a network address associated with at
3 least one edge server.

1 8. A process as recited in claim 1, wherein directing recipient processors
2 comprises providing a recipient processor with a uniform resource locator (URL) for
3 locating at least one edge server, the URL also including a token which identifies a
4 requested content item.

1 9. A process as recited in claim 1, wherein directing recipient processors
2 comprises providing a recipient processor with a uniform resource locator (URL) for
3 locating at least one edge server, the URL including a token which identifies the
4 recipient processor.

1 10. A process for delivering content items over a network to recipient
2 processors within a service region, the method comprising:

3 storing content items with at least one parent server connected on the network;
4 receiving content items from the at least one parent server over the network
5 and storing content items with a plurality of edge servers connected on the network
6 and distributed within the service region;

7 providing an interface with at least one main server connected on the network,
8 for receiving and processing requests for content items from recipient processors; and
9 directing recipient processors to edge servers to obtain requested content items
10 in response to receiving and processing requests for content items on the at least one
11 main server.

1 11. A process as recited in claim 10, wherein the network comprises the
2 Internet and the interface comprises a website supported by the at least one main
3 server.

1 12. A process as recited in claim 10, wherein storing content items with at
2 least one parent server comprises storing all available content items with each parent
3 server, and wherein storing content items with each edge server comprises storing less
4 than all available content items.

1 13. A process as recited in claim 10, wherein directing recipient processors
2 to edge servers comprises receiving a request at an edge servers for a content item
3 from a recipient processor that is directed to the edge server by the main server and, in
4 response to the request, determining whether the requested content item is stored with
5 the edge server and, if the requested content item is not stored with the edge server,
6 requesting the content item from a parent server.

1 14. A process as recited in claim 10, wherein the content items comprise
2 digitally encoded files, each file having at least 500 Mega Bytes of data.

1 15. A process as recited in claim 10, wherein the content items comprise
2 digitally encoded movie files.

1 16. A process as recited in claim 10, wherein directing recipient processors
2 comprises providing recipient processors with a network address associated with at
3 least one edge server.

1 17. A process as recited in claim 10, wherein directing recipient processors
2 comprises providing a recipient processor with a uniform resource locator (URL) for
3 locating at least one edge server, the URL also including a token which identifies a
4 requested content item.

1 18. A process as recited in claim 10, wherein directing recipient processors
2 comprises providing a recipient processor with a uniform resource locator (URL) for
3 locating at least one edge server, the URL including a token which identifies the
4 recipient processor.

1 19. A process as recited in claim 10, further comprising determining
2 whether recipient processors are in a specified geographic region and denying access
3 to requested content to recipient processors not within the specified region.

1 20. A process as recited in claim 10, wherein storing content items with
2 each edge server comprises determining which content items to store or not to store on
3 an edge server based on a least recently used LRU algorithm and storing content items
4 on the edge server based on the determination..

1 21. A process as recited in claim 10, wherein directing recipient processors
2 to edge servers comprises determining appropriate edge servers to which recipient
3 processors may be directed by a load balancing technique..

1 22. A process as recited in claim 21, wherein the load balancing technique
2 comprises a Best Distributor Selection BDI system.

1 23. A process for delivering content items over a network to recipient
2 processors within a service region, the method comprising:

3 storing content items with at least one parent server connected on the network;
4 receiving content items from the at least one parent server over the network
5 and storing content items with a plurality of edge servers connected on the network
6 and distributed within the service region;

7 providing an interface with at least one main server connected on the network,
8 for receiving and processing requests and payment information for content items from
9 recipient processors; and

10 directing recipient processors to edge servers to obtain requested content items
11 in response to receiving and processing requests for content items by the at least one
12 main server; and

13 controlling access by recipient processors to content items obtained from edge
14 servers, based on payment information received and processed by at least one main
15 server.

1 24. A process as recited in claim 23, wherein the network comprises the
2 Internet and the interface comprises a website supported by the at least one main
3 server. .